

The opinion in support of the decision being entered today is
not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte LARRY RISING

Appeal 2007-2201
Application 10/613,735
Technology Center 1700

Decided: September 25, 2007

Before CHARLES F. WARREN, THOMAS A. WALTZ, and
CATHERINE Q. TIMM, *Administrative Patent Judges*.

WALTZ, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on an appeal under 35 U.S.C. § 134 from the Primary Examiner's final rejection of claims 26 through 48. Claims 1-23 and 49-74 are the only other claims pending in this application and stand withdrawn from consideration as directed to a non-elected invention (Br. 2).¹ We have jurisdiction pursuant to 35 U.S.C. § 6(b).

¹ We refer to and cite from the amended Appeal Brief dated Nov. 6, 2006.

According to Appellant, the invention is directed to an apparatus and method for applying chemicals to substrates through a continuous process using non-aqueous solvents as a carrier medium for chemicals, with the non-aqueous solvents being evaporated away leaving the chemicals on the substrates, and the non-aqueous solvents thereafter being condensed, purified, and recycled (Br. 2). Independent claim 26 is illustrative of the invention and a copy of this claim is reproduced below:

26. A method for applying a chemical solution to a substrate, comprising acts of:

forming a chemical mixture comprising a non-aqueous solvent and a chemical solute;

applying the chemical mixture to the substrate forming a wet substrate;

removing the non-aqueous solvent from the wet substrate, leaving the substrate with remaining chemical solute;

wherein the act of removing the non-aqueous solvent from the wet substrate comprises acts of:

removing a portion of the chemical mixture from the wet substrate, leaving a substrate with remaining chemical mixture;

lowering a boiling point of the non-aqueous solvent in the substrate with remaining chemical mixture; and

evaporating the non-aqueous solvent into a solvent vapor by passing the substrate with remaining chemical mixture by and against an evaporator apparatus, such that the evaporator apparatus operates as a heat plate to evaporate the non-aqueous solvent into a solvent vapor.

The Examiner has relied on the following prior art references as evidence of unpatentability:

Wedler	US Re. 27,995	Apr. 30, 1974
Ellison	US 4,136,636	Jan. 30, 1979
Kinsley, Jr.	US 4,421,794	Dec. 30, 1983

ISSUES ON APPEAL

Claims 26-48 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement (Answer 3).

Claims 26-30 and 33 stand rejected under 35 U.S.C. § 102(b) as anticipated by Wedler (Answer 4).

Claim 31 stands rejected under 35 U.S.C. § 103(a) as obvious over Wedler in view of Ellison (Answer 7).

Claims 32 and 34-42 stand rejected under 35 U.S.C. § 103(a) as obvious over Wedler in view of Kinsley, Jr. (Answer 7).

Claims 43-48 stand rejected under 35 U.S.C. § 103(a) as obvious over Wedler in view of Kinsley, Jr., and Ellison (Answer 10).

Appellant notes that the Amendment of Jun. 13, 2005, amended claim 26 to require “passing the substrate with remaining chemical mixture by and against an evaporator apparatus, such that the evaporator apparatus operates as a heat plate to evaporate the non-aqueous solvent into a solvent vapor” (Br. 7). Appellant contends that the Specification, at page 11, ll. 10-22, Fig. 1, and the dictionary definition of “heat exchanger” would have allowed one of ordinary skill in the art to understand that the evaporator apparatus operates as a heated surface (i.e., a heat plate) when in contact with the substrate (Br. 7-8).

Appellant contends that the cylinders described in Wedler are heat exchanging rollers that allow the textile material to “pass *with* and against” the rollers while the heat exchanger of claim 26 is a fixed device that operates as a heat plate to allow the textile material to “*pass by* and *against*” the heat exchanger (Br. 10). Accordingly, Appellants contend that the substrate of Wedler does not “go across” the rollers but rolls with the rollers (*id.*).²

The Examiner contends that while the Specification describes the use of “any suitable apparatus for evaporating the non-aqueous solvent,” a “heat plate” is not specifically described or suggested (Answer 12). The Examiner further contends that the description of a heat exchanger does not provide support for the broader genus of a “heat plate,” since a “heat plate” is not necessarily a heat exchanger (Answer 13).

The Examiner contends that the heated cylinders of Wedler “operate as a heat plate” (Answer 15-16). The Examiner further contends that, giving the claim language its broadest reasonable interpretation, the term “by and against” reads on the passing of the textile material through the rollers as taught by Wedler (Answer 16-17).

We determine that the Examiner has established a *prima facie* lack of written description, which *prima facie* case has not been adequately rebutted

² Appellant only presents arguments for claim 26 on appeal in every ground of rejection in this appeal (Br. 6 and 9). With regard to the rejections based on § 103(a), Appellant merely repeats the argument that the claims are patentable based on their dependency on claim 26 (e.g., Br. 17-18). Therefore we limit our consideration in this appeal to claim 26, and adopt the Examiner’s findings of fact and conclusions of law with regard to the rejections based on § 103(a) (Answer 7-11).

by Appellant's arguments. Accordingly, we AFFIRM the rejection of the claims on appeal under § 112, first paragraph, essentially for the reasons stated in the Answer and those reasons set forth below.

We also determine that the Examiner has established a prima facie case of anticipation in view of Wedler, which prima facie case has not been adequately rebutted by Appellant's arguments. Accordingly, we AFFIRM the rejection of claims 26-30 and 33 under § 102(b) over Wedler essentially for the reasons stated in the Answer, as well as those reasons set forth below. Therefore, we AFFIRM the decision of the Examiner.

OPINION

A. The Rejection under § 112, ¶ 1

The Examiner finds that the amended subject matter set forth in the last paragraph of claim 26 on appeal is "new matter," i.e., the language that "the evaporator operates as a heat plate" has no basis or support in the original disclosure (Answer 4; Br. 7). Both Appellant (Br. 7) and the Examiner (Answer 4) point to the same portion of the Specification as most relevant:

The evaporator apparatus **112** may be any suitable apparatus for evaporating the non-aqueous solvent. For example, the evaporator apparatus **112** may be a heat exchanger. Further, the heat exchanger may be a steam-based heat exchanger, where steam is passed through the heat exchanger, providing a sufficient amount of heat to evaporate the non-aqueous solvent. After having come in contact with the evaporator apparatus **112**, the substrate **104** then leaves the vacuum chamber **110** and subsequently leaves the machine **100** altogether, with the chemical solution remaining and the non-aqueous solvent removed. Specification 11:15-22.

The initial burden of establishing a prima facie case of lack of written description rests with the Examiner. *See In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). However, the initial burden is discharged by the Examiner if the Examiner establishes the fact that Appellant is claiming embodiments completely outside the scope of the Specification. *See In re Alton*, 76 F.3d 1168, 1175, 37 USPQ2d 1578, 1583 (Fed. Cir. 1996). We determine that the Examiner has established the fact that the “evaporator operates as a heat plate” is an embodiment completely outside the scope of the original Specification. We determine that Appellant has not established, by argument or evidence, that a “heat plate” is any heated surface, or that a “heat plate” is a particular subgenus of heat exchanger. Therefore, we affirm the rejection based on § 112, first paragraph.

B. The Rejection based on § 102(b)

We determine the following Factual Findings from the record in this appeal:

- (1) Wedler discloses a process and apparatus for removing water and/or solvents from a textile material, including the steps of forming a chemical mixture comprising a non-aqueous solvent and a chemical solute, applying the mixture to the textile substrate, and removing the non-aqueous solvent from the wet substrate (Answer 5; *see* Wedler, Abstract);
- (2) Wedler discloses removing a portion of the chemical mixture from the wet substrate, providing a vacuum to

remove non-aqueous solvent from the system, and evaporating the non-aqueous solvent into solvent vapor by passing the substrate with remaining chemical mixture by and against an evaporator apparatus, where the evaporator operates as a heat plate to evaporate non-aqueous solvent (Answer 5-6; *see* Wedler, Abstract; col. 1, ll. 56-68; col. 2, l. 69-col. 3, l. 15; col. 3, ll. 49-53; col. 4, ll. 12-20 and 32-54; and col. 5, ll. 6-11 and 49-60).

Under 35 U.S.C. § 102, anticipation requires that the prior art reference disclose, either expressly or under the principles of inherency, every limitation of the claim. *See In re King*, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986). Implicit in our review of the Examiner's anticipation analysis is that the claim must first have been correctly construed to define the scope and meaning of each contested limitation. *See Gechter v. Davidson*, 116 F.3d 1454, 1457, 43 USPQ2d 1030, 1032 (Fed. Cir. 1997). During *ex parte* prosecution, the Patent Office should apply to the verbiage of the claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account any enlightenment by way of definition or otherwise afforded by the original disclosure. *See In re Morris*, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997).

The only contested limitation from the claim language is in regard to "passing" the substrate with remaining chemical mixture "by and against" an evaporator apparatus (Br. 10; Answer 16-19). The Examiner and Appellant agree that Wedler discloses that the substrate is "against" or in contact with

the rollers (Br. 10; Answer 17). Appellant also admits that the heat exchanging rollers disclosed by Wedler allow the textile material to “pass” the rollers (Br. 10; Answer 16). Therefore, we will limit our consideration to the interpretation of “by.” We agree with the Examiner that Appellant’s Specification contains no definition or enlightenment concerning the word “by” (Answer 17). Giving the broadest and reasonable meaning to this word in its ordinary and customary usage, we determine that “by” is construed as “in the direction of” (*id.*).³ Accordingly, we determine that the contested limitation should be construed as passing the textile substrate in the direction of and in contact with the evaporator apparatus.

Applying the preceding legal principles to the Factual Findings in the record of this appeal, and in view of our claim construction as discussed above, we determine the Examiner has established a *prima facie* case of anticipation in view of Wedler, which *prima facie* case has not been adequately rebutted by Appellant’s arguments. As shown by Factual Finding (1) and (2) listed above, we determine that Wedler discloses every limitation as required by claim 26 on appeal, including passing the textile substrate with remaining chemical mixture in the direction of and in contact with the heated rollers (evaporators), even when the rollers rotate in direction A (*see* Fig. 1; and col. 4, ll. 18-20). Accordingly, for the reasons stated in the Answer and above, we affirm the rejection of claims 26-30 and 33 under § 102(b) over Wedler.

³ We also note that a synonym for “by” is “with,” contrary to Appellant’s arguments (Br. 10). *See* the Evidence Appendix attached to the Brief, page 2 of the “Top Web Results for ‘with’”.

As also discussed above, Appellant fails to present any specific, substantive arguments for the patentability of any claim other than claim 26. Therefore, with regard to the rejections based on § 103(a), we adopt the Examiner's findings and conclusions of law (Answer 7-11). We affirm each of the rejections based on § 103(a).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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